

INTERNATIONAL STANDARD

ISO
5290

Third edition
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Belt drives — Grooved pulleys for joined narrow V-belts — Groove sections 9J, 15J, 20J and 25J (effective system)

*Transmissions par courroies — Poulies à gorges pour courroies
trapézoïdales jumelées étroites — Sections de gorge 9J, 15J, 20J et 25J
(système effectif)*



Reference number
ISO 5290:1993(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 5290 was prepared by Technical Committee ISO/TC 41, *Pulleys and belts (including veebelts)*, Sub-Committee SC 1, *Veebelts and grooved pulleys*.

This third edition cancels and replaces the second edition (ISO 5290:1985), which has been technically revised. In particular, clauses 3, 5 and 6 have been added.

Annexes A and B of this International Standard are for information only.

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1 Scope

This International Standard specifies the principal characteristics of grooved pulleys (for groove sections 9J, 15J, 20J and 25J), intended to take joined narrow V-belts for industrial power transmission drives.

Some background information on the series of effective diameters is given in annex A.

NOTES

1 The effective width of a groove is regarded as the basic dimension of standardization for grooves and for the corresponding joined V-belts considered as a whole.

2 The pitch line position can only be given approximately. The approximate pitch diameter of a pulley can be calculated by the formula

$$d_p = d_e - 2b_e$$

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 254:1990, *Belt drives — Pulleys — Quality, finish and balance.*

ISO 1081:1980, *Drives using V-belts and grooved pulleys — Terminology.*

ISO 9980:1990, *Belt drives — Grooved pulleys for V-belts (system based on effective width) — Geometrical inspection of grooves.*

3 Definitions and symbols

For the purposes of this International Standard, the terms and symbols relating to drives using V-belts (i.e. belts and grooved pulleys) defined in ISO 1081 apply.

4 Specifications

4.1 Groove profiles

4.1.1 Groove angle, α

The groove angle (see figure 1) shall have one of the following values:

- $\alpha = 36^\circ$ (for groove section 9J only)
- $\alpha = 38^\circ$
- $\alpha = 40^\circ$
- $\alpha = 42^\circ$

The relationship between the groove angle and the range of effective diameters which should be used is given in table 3.

4.1.2 Profile dimensions

The dimensions shown in figures 1 and 2 shall have the values specified in table 1.

NOTE 3 The straight sides of the groove should be at least as high as $d_e - 2\delta h_2$.